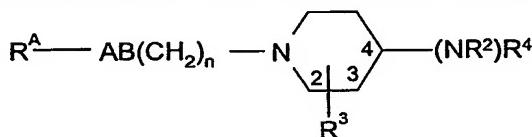


**Claims**

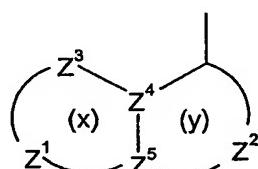
1. A compound of formula (I) or a pharmaceutically acceptable derivative thereof:



(I)

5 wherein:

$\text{R}^A$  is an optionally substituted bicyclic carbocyclic or heterocyclic ring system of structure:



- 10 containing 0-3 heteroatoms in each ring in which:  
 at least one of rings (x) and (y) is aromatic;  
 one of  $Z^4$  and  $Z^5$  is C or N and the other is C;  
 $Z^3$  is N,  $\text{NR}^{13}$ , O,  $\text{S(O)}_X$ , CO, CR<sup>1</sup> or CR<sup>1</sup>R<sup>1a</sup>;  
 $Z^1$  and  $Z^2$  are independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO, CR<sup>1</sup> and CR<sup>1</sup>R<sup>1a</sup>;  
 15 independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO, CR<sup>1</sup> and CR<sup>1</sup>R<sup>1a</sup>;  
 such that each ring is independently substituted with 0-3 groups R<sup>1</sup> and/or R<sup>1a</sup>;  
 one of  $Z^1$ ,  $Z^2$ ,  $Z^3$ ,  $Z^4$  and  $Z^5$  is N, one is CR<sup>1a</sup> and the remainder are CH, or one of  $Z^1$ ,  
 $Z^2$ ,  $Z^3$ ,  $Z^4$  and  $Z^5$  is CR<sup>1a</sup> and the remainder are CH;  
 20 R<sup>1</sup> and R<sup>1a</sup> are independently hydrogen; hydroxy; (C<sub>1-6</sub>)alkoxy optionally substituted by (C<sub>1-6</sub>)alkoxy, amino, piperidyl, guanidino or amidino any of which is optionally N-substituted by one or two (C<sub>1-6</sub>)alkyl, acyl or (C<sub>1-6</sub>)alkylsulphonyl groups, CONH<sub>2</sub>, hydroxy, (C<sub>1-6</sub>)alkylthio, heterocyclithio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C<sub>1-6</sub>)alkylsulphonyloxy; (C<sub>1-6</sub>)alkoxy-substituted(C<sub>1-6</sub>)alkyl; hydroxy (C<sub>1-6</sub>)alkyl; halogen; (C<sub>1-6</sub>)alkyl; (C<sub>1-6</sub>)alkylthio; trifluoromethyl; trifluoromethoxy; cyano; carboxy; nitro; azido; acyl; acyloxy; acylthio; (C<sub>1-6</sub>)alkylsulphonyl; (C<sub>1-6</sub>)alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C<sub>1-6</sub>)alkyl, acyl or (C<sub>1-6</sub>)alkylsulphonyl groups, or when Z<sup>3</sup> and the adjacent atom are CR<sup>1</sup> and CR<sup>1a</sup>, R<sup>1</sup> and R<sup>1a</sup> may together represent (C<sub>1-2</sub>)alkylenedioxy;

provided that R<sup>1</sup> and R<sup>1a</sup>, on the same carbon atom are not both optionally substituted hydroxy or amino;

provided that

5 (i) when R<sup>A</sup> is optionally substituted quinolin-4-yl:

it is unsubstituted in the 6-position; or

it is substituted by at least one hydroxy (C<sub>1-6</sub>)alkyl, cyano or carboxy group at the 2-, 5-, 6-, 7- or 8-position; or

it is substituted by at least one trifluoromethoxy group; or

10 R<sup>1</sup> and R<sup>1a</sup> together represent (C<sub>1-2</sub>)alkylenedioxy;

(ii) when R<sup>A</sup> is optionally substituted quinazolin-4-yl, cinnolin-4-yl, 1,5-naphthyridin-4-yl, 1,7-naphthyridin-4-yl or 1,8-naphthyridin-4-yl:

it is substituted by at least one hydroxy (C<sub>1-6</sub>)alkyl, cyano or carboxy group at the 2-, 5-, 6-, 7- or 8-position as available; or

15 it is substituted by at least one trifluoromethoxy group; or

R<sup>1</sup> and R<sup>1a</sup> together represent (C<sub>1-2</sub>)alkylenedioxy;

R<sup>2</sup> is hydrogen, or (C<sub>1-4</sub>)alkyl or (C<sub>2-4</sub>)alkenyl optionally substituted with 1 to 3 groups selected from:

20 amino optionally substituted by one or two (C<sub>1-4</sub>)alkyl groups; carboxy; (C<sub>1-4</sub>)alkoxycarbonyl; (C<sub>1-4</sub>)alkylcarbonyl; (C<sub>2-4</sub>)alkenyloxycarbonyl; (C<sub>2-4</sub>)alkenylcarbonyl; aminocarbonyl wherein the amino group is optionally substituted by

hydroxy, (C<sub>1-4</sub>)alkyl, hydroxy(C<sub>1-4</sub>)alkyl, aminocarbonyl(C<sub>1-4</sub>)alkyl, (C<sub>2-4</sub>)alkenyl,

(C<sub>1-4</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-4</sub>)alkenylsulphonyl, (C<sub>1-4</sub>)alkoxycarbonyl, (C<sub>1-4</sub>)alkylcarbonyl, (C<sub>2-4</sub>)alkenyloxycarbonyl or (C<sub>2-4</sub>)alkenylcarbonyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by R<sup>10</sup>; 3-

hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-

ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R<sup>10</sup>; 5-oxo-1,2,4-oxadiazol-

3-yl; halogen; (C<sub>1-4</sub>)alkylthio; trifluoromethyl; hydroxy optionally substituted by (C<sub>1-4</sub>)alkyl, (C<sub>2-4</sub>)alkenyl, (C<sub>1-4</sub>)alkoxycarbonyl, (C<sub>1-4</sub>)alkylcarbonyl, (C<sub>2-4</sub>)alkenyloxycarbonyl, (C<sub>2-4</sub>)alkenylcarbonyl; oxo; (C<sub>1-4</sub>)alkylsulphonyl; (C<sub>2-4</sub>)alkenylsulphonyl; or (C<sub>1-4</sub>)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1-4</sub>)alkyl or (C<sub>2-4</sub>)alkenyl;

25

30

35 R<sup>3</sup> is hydrogen; or

R<sup>3</sup> is in the 2-, 3- or 4-position and is:

trifluoromethyl; carboxy; (C<sub>1</sub>-<sub>6</sub>)alkoxycarbonyl; (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C<sub>1</sub>-<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-<sub>6</sub>)alkyl, (C<sub>2</sub>-<sub>6</sub>)alkenyl, (C<sub>1</sub>-<sub>6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2</sub>-<sub>6</sub>)alkenylsulphonyl, (C<sub>1</sub>-<sub>6</sub>)alkoxycarbonyl, (C<sub>1</sub>-<sub>6</sub>)alkylcarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl or (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl and optionally further substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-<sub>6</sub>)alkyl or (C<sub>2</sub>-<sub>6</sub>)alkenyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl 5  
optionally substituted by R<sup>10</sup>; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally 10  
substituted by R<sup>10</sup>; or 5-oxo-1,2,4-oxadiazol-3-yl; or  
(C<sub>1</sub>-<sub>4</sub>)alkyl or ethenyl optionally substituted with any of the substituents listed above for R<sup>3</sup> and/or 0 to 2 groups R<sup>12</sup> independently selected from:  
halogen; (C<sub>1</sub>-<sub>6</sub>)alkylthio; trifluoromethyl; (C<sub>1</sub>-<sub>6</sub>)alkoxycarbonyl; (C<sub>1</sub>-<sub>6</sub>)alkylcarbonyl; (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl; (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl; hydroxy optionally 15  
substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl, (C<sub>2</sub>-<sub>6</sub>)alkenyl, (C<sub>1</sub>-<sub>6</sub>)alkoxycarbonyl, (C<sub>1</sub>-<sub>6</sub>)alkylcarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl or aminocarbonyl wherein the amino 20  
group is optionally substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl, (C<sub>2</sub>-<sub>6</sub>)alkenyl, (C<sub>1</sub>-<sub>6</sub>)alkylcarbonyl or (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl; amino optionally mono- or disubstituted by (C<sub>1</sub>-<sub>6</sub>)alkoxycarbonyl, (C<sub>1</sub>-<sub>6</sub>)alkylcarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl, (C<sub>1</sub>-<sub>6</sub>)alkyl, 25  
(C<sub>2</sub>-<sub>6</sub>)alkenyl, (C<sub>1</sub>-<sub>6</sub>)alkylsulphonyl, (C<sub>2</sub>-<sub>6</sub>)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl or (C<sub>2</sub>-<sub>6</sub>)alkenyl; aminocarbonyl 30  
wherein the amino group is optionally substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-<sub>6</sub>)alkyl, (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl or (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl and optionally further substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl, hydroxy(C<sub>1</sub>-<sub>6</sub>)alkyl, aminocarbonyl(C<sub>1</sub>-<sub>6</sub>)alkyl or (C<sub>2</sub>-<sub>6</sub>)alkenyl; oxo; (C<sub>1</sub>-<sub>6</sub>)alkylsulphonyl; (C<sub>2</sub>-<sub>6</sub>)alkenylsulphonyl; or (C<sub>1</sub>-<sub>6</sub>)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1</sub>-<sub>6</sub>)alkyl or (C<sub>2</sub>-<sub>6</sub>)alkenyl; or

R<sup>3</sup> is in the 2-position and is oxo; or

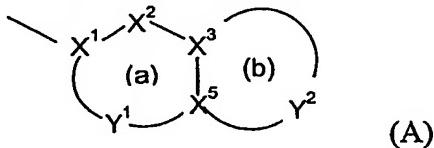
30 R<sup>3</sup> is in the 3-position and is fluorine, amino optionally substituted by a group selected from hydroxy, (C<sub>1</sub>-<sub>6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2</sub>-<sub>6</sub>)alkenylsulphonyl, (C<sub>1</sub>-<sub>6</sub>)alkylcarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenylcarbonyl, (C<sub>1</sub>-<sub>6</sub>)alkoxycarbonyl, (C<sub>2</sub>-<sub>6</sub>)alkenyloxycarbonyl, (C<sub>1</sub>-<sub>6</sub>)alkyl and (C<sub>2</sub>-<sub>6</sub>)alkenyl, wherein a (C<sub>1</sub>-<sub>6</sub>)alkyl or (C<sub>2</sub>-<sub>6</sub>)alkenyl moiety may be optionally substituted with up to 2 groups R<sup>12</sup>, or hydroxy 35  
optionally substituted as described above for R<sup>12</sup> hydroxy;

in addition when R<sup>3</sup> is disubstituted with a hydroxy or amino containing substituent and carboxy containing substituent these may together form a cyclic ester or amide linkage, respectively;

R<sup>4</sup> is a group -U-R<sup>5</sup> where

5 U is selected from CO, SO<sub>2</sub> and CH<sub>2</sub> and

R<sup>5</sup> is an optionally substituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which

at least one of rings (a) and (b) is aromatic;

10 X<sup>1</sup> is C or N when part of an aromatic ring, or CR<sup>14</sup> when part of a non-aromatic ring;

X<sup>2</sup> is N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO or CR<sup>14</sup> when part of an aromatic or non-aromatic ring or may in addition be CR<sup>14</sup>R<sup>15</sup> when part of a non aromatic ring;

X<sup>3</sup> and X<sup>5</sup> are independently N or C;

15 Y<sup>1</sup> is a 0 to 4 atom linker group each atom of which is independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO and CR<sup>14</sup> when part of an aromatic or non-aromatic ring or may additionally be CR<sup>14</sup>R<sup>15</sup> when part of a non aromatic ring;

20 Y<sup>2</sup> is a 2 to 6 atom linker group, each atom of Y<sup>2</sup> being independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO, CR<sup>14</sup> when part of an aromatic or non-aromatic ring or may additionally be CR<sup>14</sup>R<sup>15</sup> when part of a non aromatic ring;

each of R<sup>14</sup> and R<sup>15</sup> is independently selected from: H; (C<sub>1-4</sub>)alkylthio; halo; carboxy(C<sub>1-4</sub>)alkyl; halo(C<sub>1-4</sub>)alkoxy; halo(C<sub>1-4</sub>)alkyl; (C<sub>1-4</sub>)alkyl; (C<sub>2-4</sub>)alkenyl; (C<sub>1-4</sub>)alkoxycarbonyl; formyl; (C<sub>1-4</sub>)alkylcarbonyl; (C<sub>2-4</sub>)alkenyloxycarbonyl; (C<sub>2-4</sub>)alkenylcarbonyl; (C<sub>1-4</sub>)alkylcarbonyloxy; (C<sub>1-4</sub>)alkoxycarbonyl(C<sub>1-4</sub>)alkyl; hydroxy; hydroxy(C<sub>1-4</sub>)alkyl; mercapto(C<sub>1-4</sub>)alkyl; (C<sub>1-4</sub>)alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted as for corresponding substituents in R<sup>3</sup>; (C<sub>1-4</sub>)alkylsulphonyl; (C<sub>2-4</sub>)alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally mono- or di-substituted by (C<sub>1-4</sub>)alkyl or (C<sub>2-4</sub>)alkenyl; aryl; aryl(C<sub>1-4</sub>)alkyl; aryl(C<sub>1-4</sub>)alkoxy or

30 R<sup>14</sup> and R<sup>15</sup> may together represent oxo;

each R<sup>13</sup> is independently H; trifluoromethyl; (C<sub>1-4</sub>)alkyl optionally substituted by hydroxy, (C<sub>1-6</sub>)alkoxy, (C<sub>1-6</sub>)alkylthio, halo or trifluoromethyl; (C<sub>2-4</sub>)alkenyl; aryl; aryl (C<sub>1-4</sub>)alkyl; arylcarbonyl; heteroarylcarbonyl; (C<sub>1-4</sub>)alkoxycarbonyl; (C<sub>1-4</sub>)alkylcarbonyl; formyl; (C<sub>1-6</sub>)alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-4</sub>)alkoxycarbonyl, (C<sub>1-4</sub>)alkylcarbonyl, (C<sub>2-4</sub>)

4) alkenyloxycarbonyl, (C<sub>2</sub>-4)alkenylcarbonyl, (C<sub>1</sub>-4)alkyl or (C<sub>2</sub>-4)alkenyl and optionally further substituted by (C<sub>1</sub>-4)alkyl or (C<sub>2</sub>-4)alkenyl;

each x is independently 0, 1 or 2

5 n is 0 and AB is NR<sup>11</sup>CO, CO-CR<sup>8</sup>R<sup>9</sup>, CR<sup>6</sup>R<sup>7</sup>-CO, NHR<sup>11</sup>SO<sub>2</sub>, CR<sup>6</sup>R<sup>7</sup>-SO<sub>2</sub> or CR<sup>6</sup>R<sup>7</sup>-CR<sup>8</sup>R<sup>9</sup>, provided that R<sup>8</sup> and R<sup>9</sup> are not optionally substituted hydroxy or amino and R<sup>6</sup> and R<sup>8</sup> do not represent a bond:  
or n is 1 and AB is NR<sup>11</sup>CO, CO-CR<sup>8</sup>R<sup>9</sup>, CR<sup>6</sup>R<sup>7</sup>-CO, NR<sup>11</sup>SO<sub>2</sub>, CONR<sup>11</sup>, CR<sup>6</sup>R<sup>7</sup>-CR<sup>8</sup>R<sup>9</sup>, O-CR<sup>8</sup>R<sup>9</sup> or NR<sup>11</sup>-CR<sup>8</sup>R<sup>9</sup>;

provided that R<sup>6</sup> and R<sup>7</sup>, and R<sup>8</sup> and R<sup>9</sup> are not both optionally substituted hydroxy or amino;

and wherein:

15 each of R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> is independently selected from: H; (C<sub>1</sub>-6)alkoxy; (C<sub>1</sub>-6)alkylthio; halo; trifluoromethyl; azido; (C<sub>1</sub>-6)alkyl; (C<sub>2</sub>-6)alkenyl; (C<sub>1</sub>-6)alkoxycarbonyl; (C<sub>1</sub>-6)alkylcarbonyl; (C<sub>2</sub>-6)alkenyloxycarbonyl; (C<sub>2</sub>-6)alkenylcarbonyl; hydroxy, amino or aminocarbonyl optionally substituted as for corresponding substituents in R<sup>3</sup>; (C<sub>1</sub>-6)alkylsulphonyl; (C<sub>2</sub>-6)alkenylsulphonyl; or (C<sub>1</sub>-6)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1</sub>-6)alkyl or (C<sub>2</sub>-6)alkenyl;  
20 or R<sup>6</sup> and R<sup>8</sup> together represent a bond and R<sup>7</sup> and R<sup>9</sup> are as above defined;

25 R<sup>10</sup> is selected from (C<sub>1</sub>-4)alkyl; (C<sub>2</sub>-4)alkenyl and aryl any of which may be optionally substituted by a group R<sup>12</sup> as defined above; carboxy; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C<sub>1</sub>-6)alkyl, (C<sub>2</sub>-6)alkenyl, (C<sub>1</sub>-6)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2</sub>-6)alkenylsulphonyl, (C<sub>1</sub>-6)alkoxycarbonyl, (C<sub>1</sub>-6)alkylcarbonyl, (C<sub>2</sub>-6)alkenyloxycarbonyl or (C<sub>2</sub>-6)alkenylcarbonyl and optionally further substituted by (C<sub>1</sub>-6)alkyl or (C<sub>2</sub>-6)alkenyl; and

30 R<sup>11</sup> is hydrogen; trifluoromethyl, (C<sub>1</sub>-6)alkyl; (C<sub>2</sub>-6)alkenyl; (C<sub>1</sub>-6)alkoxycarbonyl; (C<sub>1</sub>-6)alkylcarbonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1</sub>-6)alkoxycarbonyl, (C<sub>1</sub>-6)alkylcarbonyl, (C<sub>2</sub>-6)alkenyloxycarbonyl, (C<sub>2</sub>-6)alkenylcarbonyl, (C<sub>1</sub>-6)alkyl or (C<sub>2</sub>-6)alkenyl and optionally further substituted by (C<sub>1</sub>-6)alkyl or (C<sub>2</sub>-6)alkenyl;

or where one of R<sup>3</sup> and R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> or R<sup>9</sup> contains a carboxy group and the other contains a hydroxy or amino group they may together form a cyclic ester or amide linkage.

2. A compound according to claim 1 wherein R<sup>A</sup> is optionally substituted isoquinolin-5-yl, quinolin-8-yl, thieno[3,2-b]pyridin-7-yl, 2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-8-yl, quinoxalin-5-yl, isoquinolin-8-yl, [1,6]-naphthyridin-4-yl, 1,2,3,4-tetrahydroquinoxalin-5-yl or 1,2-dihydroisoquinoline-8-yl..
3. A compound according to any preceding claim wherein R<sup>1</sup> is H, methoxy, methyl, cyano or halogen and R<sup>1a</sup> is H.
4. A compound according to any preceding claim wherein R<sup>3</sup> is hydrogen; optionally substituted hydroxy; optionally substituted amino; halogen; (C<sub>1-4</sub>)alkoxycarbonyl; CONH<sub>2</sub>; 1-hydroxyalkyl; CH<sub>2</sub>CO<sub>2</sub>H; CH<sub>2</sub>CONH<sub>2</sub>; -CONHCH<sub>2</sub>CONH<sub>2</sub>; 1,2-dihydroxyalkyl; CH<sub>2</sub>CN; 2-oxo-oxazolidin-5-yl; or 2-oxo-oxazolidin-5-yl(C<sub>1-4</sub>alkyl).
5. A compound according to any preceding claim wherein n is 0 and A and B are both CH<sub>2</sub>, A is CHOH and B is CH<sub>2</sub> or A is NH and B is CO.
6. A compound according to any preceding claim wherein -U- is -CH<sub>2</sub>-.
7. A compound according to any preceding claim wherein the heterocyclic ring (A) having 8-11 ring atoms including 2-4 heteroatoms of which at least one is N or NR<sup>13</sup> in which Y<sup>2</sup> contains 2-3 heteroatoms, one of which is S and 1-2 are N, with one N bonded to X<sup>3</sup> or the heterocyclic ring (A) has ring (a) aromatic selected from optionally substituted benzo and pyrido and ring (b) non aromatic and Y<sup>2</sup> has 3-5 atoms, including a heteroatom bonded to X<sup>5</sup> selected from O, S or NR<sup>13</sup>, where R<sup>13</sup> is other than hydrogen, and NHCO bonded via N to X<sup>3</sup>, or O bonded to X<sup>3</sup>.
8. A compound according to any one of claims 1 to 6 wherein R<sup>5</sup> is selected from:  
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl  
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl  
7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl  
7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl
- 2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl.
9. A compound according to claim 1 selected from:

- 4-(2-{4-[(3-Oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-piperidin-1-yl}-ethyl)-quinoline-6-carbonitrile 6-({(3R,4S)-3-Fluoro-1-[*(R*)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one
- 5 6-({(3S,4R)-3-Fluoro-1-[*(R*)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one
- 6-({(3R,4R)-3-Hydroxy-1-[*(R*)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one
- 10 6-({(3S,4S)-3-Hydroxy-1-[*(R*)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one
- 6-({(3R,4S)-1-[2-(2,3-Dihydro-[1,4]dioxino[2,3-f]quinolin-10-yl)-ethyl]-3-fluoro-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one
- 6-{{(1-{(2R/S)-2-hydroxy-2-[3-(methyloxy)-5-quinoxaliny]ethyl}-4-piperidinyl)amino}methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4*H*)-one
- 15 (1*R/S*)-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-(methyloxy)-5-quinoxaliny]ethanol
- {1-[2-(9-Chloro-2,3-dihydro-[1,4]dioxino[2,3-f]quinolin-10-yl)-ethyl]-piperidin-4-yl}-  
(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine 6-{{(1-{2-hydroxy-2-[2-(methyloxy)-8-quinolinyl]ethyl}-4-piperidinyl)amino}methyl}-2H-pyrido[3,2-b][1,4]oxazin-3(4*H*)-one
- 20 6-[(1-[2-(4-quinolinyl)ethyl]-4-piperidinyl)amino)methyl]-2H-pyrido[3,2-b][1,4]thiazin-3(4*H*)-one
- 4-[2-(3-hydroxy-4-{{(3-oxo-3,4-dihydro-2*H*-pyrido[3,2-b][1,4]oxazin-6-yl)methyl}amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile (isomer E2)
- 25 4-[2-(3-hydroxy-4-{{(3-oxo-3,4-dihydro-2*H*-pyrido[3,2-b][1,4]thiazin-6-yl)methyl}amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile (isomer E2)
- 4-[2-(3-hydroxy-4-{{(3-oxo-3,4-dihydro-2*H*-pyrido[3,2-b][1,4]oxazin-6-yl)methyl}amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile (E1 isomer)
- 30 4-[2-(3-hydroxy-4-{{(3-oxo-3,4-dihydro-2*H*-pyrido[3,2-b][1,4]thiazin-6-yl)methyl}amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile (E1 isomer)  
or a pharmaceutically acceptable derivative thereof.

10. A method of treatment of bacterial infections in mammals, particularly in man, which method comprises the administration to a mammal in need of such treatment an effective amount of a compound according to claim 1.

11. The use of a compound according to claim 1, in the manufacture of a medicament for use in the treatment of bacterial infections in mammals.

12. A pharmaceutical composition comprising a compound according to claim 1 and  
5 a pharmaceutically acceptable carrier for use in the treatment of bacterial infections in mammals.

13. A pharmaceutical composition comprising a compound according to claim 1, and  
a pharmaceutically acceptable carrier.

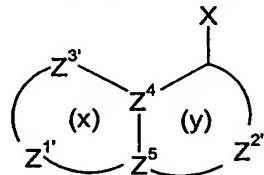
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14. A compound according to claim 1 for use as a medicament.

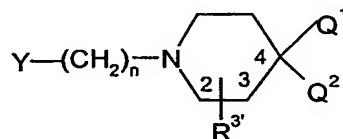
15. A compound according to claim 1 for use in the treatment of bacterial infections in mammals.

15

16. A process for preparing a compound of formula (I) according to claim 1, or a pharmaceutically acceptable derivative thereof, which process comprises reacting a compound of formula (IV) with a compound of formula (V):



(IV)



(V)

20

wherein n is as defined in formula (I); Z<sup>1'</sup>, Z<sup>2'</sup>, Z<sup>3'</sup>, R<sup>1'</sup>, and R<sup>3'</sup> are Z<sup>1</sup>, Z<sup>2</sup>, Z<sup>3</sup>, R<sup>1</sup>, and R<sup>3</sup> as defined in formula (I) or groups convertible thereto; Z<sup>4</sup> and Z<sup>5</sup> are as defined in formula (I);

Q<sup>1</sup> is NR<sup>2'</sup>R<sup>4'</sup> or a group convertible thereto wherein R<sup>2'</sup> and R<sup>4'</sup> are R<sup>2</sup> and R<sup>4</sup> as defined in formula (I) or groups convertible thereto and Q<sup>2</sup> is H or R<sup>3'</sup> or Q<sup>1</sup> and Q<sup>2</sup> together form an optionally protected oxo group;

- (i) X is A'-COW, Y is H and n is 0;
- (ii) X is CR<sup>6</sup>=CR<sup>8</sup>R<sup>9</sup>, Y is H and n is 0;
- (iii) X is oxirane, Y is H and n is 0;
- 30 (iv) X is N=C=O and Y is H and n is 0;
- (v) one of X and Y is CO<sub>2</sub>RY and the other is CH<sub>2</sub>CO<sub>2</sub>R<sup>X</sup>;
- (vi) X is CHR<sup>6</sup>R<sup>7</sup> and Y is C(=O)R<sup>9</sup>;
- (vii) X is CR<sup>7</sup>=PR<sup>Z</sup><sub>3</sub> and Y is C(=O)R<sup>9</sup> and n=1;
- (viii) X is C(=O)R<sup>7</sup> and Y is CR<sup>9</sup>=PR<sup>Z</sup><sub>3</sub> and n=1;

(ix) Y is COW and X is NHR<sup>11'</sup>, NCO or NR<sup>11'</sup>COW and n=0 or 1 or when n=1 X is COW and Y is NHR<sup>11'</sup>, NCO or NR<sup>11'</sup>COW;

(x) X is NHR<sup>11'</sup> and Y is C(=O)R<sup>8</sup> and n=1;

(xi) X is NHR<sup>11'</sup> and Y is CR<sup>8</sup>R<sup>9</sup>W and n=1;

5 (xii) X is NR<sup>11'</sup>COCH<sub>2</sub>W or NR<sup>11'</sup>SO<sub>2</sub>CH<sub>2</sub>W and Y is H and n=0;

(xiii) X is CR<sup>6</sup>R<sup>7</sup>SO<sub>2</sub>W and Y is H and n=0;

(xiv) X is W or OH and Y is CH<sub>2</sub>OH and n is 1;

(xv) X is NHR<sup>11'</sup> and Y is SO<sub>2</sub>W or X is NR<sup>11'</sup>SO<sub>2</sub>W and Y is H, and n is 0;

(xvi) X is W and Y is CONHR<sup>11'</sup>;

10 (xvii) X is -CH=CH<sub>2</sub> and Y is H and n=0;

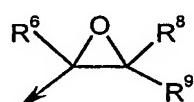
in which W is a leaving group, e.g. halo, methanesulphonyloxy,

trifluoromethanesulphonyloxy or imidazolyl; R<sup>X</sup> and R<sup>Y</sup> are (C<sub>1-6</sub>)alkyl; R<sup>Z</sup> is aryl or

(C<sub>1-6</sub>)alkyl; A' and NR<sup>11'</sup> are A and NR<sup>11</sup> as defined in formula (I), or groups

convertible thereto; and oxirane is:

15



wherein R<sup>6</sup>, R<sup>8</sup> and R<sup>9</sup> are as defined in formula (I);

and thereafter optionally or as necessary converting Q<sup>1</sup> and Q<sup>2</sup> to NR<sup>2</sup>R<sup>4</sup>; converting A', Z<sup>1</sup>', Z<sup>2</sup>', Z<sup>3</sup>', R<sup>1</sup>', R<sup>2</sup>', R<sup>3</sup>', R<sup>4</sup>' and NR<sup>11'</sup>; to A, Z<sup>1</sup>, Z<sup>2</sup>, Z<sup>3</sup>, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and NR<sup>11</sup>;

20 converting A-B to other A-B, interconverting R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and/or R<sup>4</sup>, and/or forming a pharmaceutically acceptable derivative thereof.